

## CLAIMS

What is claimed is:

- 1           1.       A method comprising:  
2           creating a session-based ad-hoc group (SBG) within a well-known ad-hoc group  
3           (WKG) for impromptu interactions among unrelated mobile users, the WKG having a  
4           WKG network configuration and a set of WKG interaction protocols, the SBG having  
5           SBG network configuration and a set of SBG interaction protocols; and  
6           advertising information pertaining to the SBG on the WKG.
- 1           2.       The method of claim 1 wherein creating the SBG comprises  
2           obtaining the WKG network configuration and the set of WKG interaction  
3           protocols.
- 1           3.       The method of claim 2 wherein obtaining the WKG network  
2           configuration and the set of WKG interaction protocols comprises obtaining one of a  
3           pre-configuration on a retail device, a downloadable client software, and a public  
4           advertisement.
- 1           4.       The method of claim 1 wherein the WKG creating one of an open WKG  
2           and a restricted WKG, the open WKG having no access control, the restricted WKG  
3           having an access control to selected users.
- 1           5.       The method of claim 1 wherein creating the SBG comprises:  
2           creating one of an open SBG and a restricted SBG, the open SBG having no  
3           access control, the restricted SBG having an access control to selected users.
- 1           6.       The method of claim 5 wherein creating one of an open SBG and a  
2           restricted SBG comprises:  
3           selecting at least an administrator to manage access to the restricted SBG and  
4           control changes to the SBG network configuration.
- 1           7.       The method of claim 6 wherein advertising comprises:  
2           selecting an advertising node according to a criteria within the SBG;  
3           collecting information on the SBG;

4           periodically joining the WKG to broadcast the SBG information and to collect  
5 information on the WKG or a nearby SBG; and  
6           returning to the SBG to advertise the information collected on the WKG to SBG  
7 members.

1           8.       The method of claim 1 further comprising:  
2           joining the WKG according to user configuration.

1           9.       The method of claim 8 wherein joining the WKG comprises:  
2           joining the SBG.

1           10.      The method of claim 1 further comprising:  
2           partitioning one of the WKG and the SBG.

1           11.      The method of claim 1 further comprising:  
2           merging the WKG to one other WKG; and  
3           merging the SBG to one other SBG.

1           12.      The method of claim 1 further comprising:  
2           enabling interaction among the unrelated mobile users within the WKG or the  
3 SBG using the WKG interaction protocols or the SBG interaction protocols.

1           13.      The method of claim 12 wherein enabling interaction comprises:  
2           managing an application;  
3           discovering at least one of a host, an application, and a user profile;  
4           managing distributed resource; and  
5           managing group information.

1           14.      An article of manufacture comprising:  
2           a machine-accessible medium including data that, when accessed by a machine,  
3 causes the machine to perform operations comprising:  
4           creating a session-based ad-hoc group (SBG) within a well-known ad-hoc group  
5 (WKG) for impromptu interactions among unrelated mobile users, the WKG having a  
6 WKG network configuration and a set of WKG interaction protocols, the SBG having  
7 SBG network configuration and a set of SBG interaction protocols; and  
8           advertising information pertaining to the SBG on the WKG.

1           15.     The article of manufacture of claim 14 wherein the data causing the  
2 machine to perform creating the WKG comprises data that, when accessed by the  
3 machine, causes the machine to perform operations comprising:  
4           obtaining the WKG network configuration and the set of WKG interaction  
5 protocols to a general public.

1           16.     The article of manufacture of claim 15 wherein the data causing the  
2 machine to perform obtaining the WKG network configuration and the set of WKG  
3 interaction protocols comprises obtaining one of a pre-configuration on a retail device,  
4 a downloadable client software, and a public advertisement.

1           17.     The article of manufacture of claim 14 wherein the WKG is one of an  
2 open WKG and a restricted WKG, the open WKG having no access control, the  
3 restricted WKG having an access control to selected users.

1           18.     The article of manufacture of claim 14 wherein the data causing the  
2 machine to perform creating the SBG comprises data that, when accessed by the  
3 machine, causes the machine to perform operations comprising:  
4           creating one of an open SBG and a restricted SBG, the open SBG having no  
5 access control, the restricted SBG having an access control to selected users.

1           19.     The article of manufacture of claim 18 wherein the data causing the  
2 machine to perform creating one of an open SBG and a restricted SBG comprises data  
3 that, when accessed by the machine, causes the machine to perform operations  
4 comprising:  
5           selecting at least an administrator to manage access to the restricted SBG and  
6 control changes to the SBG network configuration.

1           20.     The article of manufacture of claim 19 wherein the data causing the  
2 machine to perform advertising comprises data that, when accessed by the machine,  
3 causes the machine to perform operations comprising:  
4           selecting an advertising node according to a criteria within the SBG;  
5           collecting information on the SBG;

6           periodically joining the WKG to broadcast the SBG information and to collect  
7 information on the WKG or a nearby SBG; and  
8           returning to the SBG to advertise the information collected on the WKG to SBG  
9 members.

1           21.    The article of manufacture of claim 14 wherein the data further  
2 comprises data that, when accessed by the machine, causes the machine to perform  
3 operations comprising:  
4           joining the WKG according to user configuration.

1           22.    The article of manufacture of claim 21 wherein the data causing the  
2 machine to perform joining the WKG comprises data that, when accessed by the  
3 machine, causes the machine to perform operations comprising:  
4           joining the SBG.

1           23.    The article of manufacture of claim 14 wherein the data further  
2 comprises data that, when accessed by the machine, causes the machine to perform  
3 operations comprising:  
4           partitioning one of the WKG and the SBG.

1           24.    The article of manufacture of claim 14 wherein the data further  
2 comprises data that, when accessed by the machine, causes the machine to perform  
3 operations comprising:  
4           merging the WKG to one other WKG; and  
5           merging the SBG to one other SBG.

1           25.    The article of manufacture of claim 14 wherein the data further  
2 comprises data that, when accessed by the machine, causes the machine to perform  
3 operations comprising:  
4           enabling interaction among the unrelated mobile users within the WKG or the  
5 SBG using the WKG interaction protocols or the SBG interaction protocols.

1           26.    The article of manufacture of claim 25 wherein wherein the data causing  
2 the machine to perform enabling interaction comprises data that, when accessed by the  
3 machine, causes the machine to perform operations comprising:

4 managing an application;  
5 discovering at least one of a host, an application, and a user profile;  
6 managing distributed resource; and  
7 managing group information.

1 27. A system comprising:  
2 a well-known ad-hoc group (WKG) for impromptu interactions among  
3 unrelated mobile users, the WKG having a WKG network configuration and a set of  
4 WKG interaction protocols; and  
5 a session-based ad-hoc group (SBG) within the WKG to allow a user to interact  
6 with other mobile users, the SBG having SBG network configuration and a set of SBG  
7 interaction protocols, the SBG advertising information pertaining to the SBG on the  
8 WKG.

1 28. The system of claim 27 wherein the WKG is an open or restricted WKG.

1 29. The system of claim 27 wherein the SBG is an open or restricted SBG.

1 30. The system of claim 29 wherein the SBG has at least an administrator to  
2 manage access to the restricted SBG and control changes to the SBG network  
3 configuration.